

LINKING HEALTHCARE COMMUNITIES



# FHA Healthcare Directory Workgroup

April 5, 2016



Office of the National Coordinator for Health IT





# FHA HcDir Workgroup

- Managing Board charge
  - Initially focused on HcDir architectural alternatives
  - Expanded in July 2015 to include short/mid/long term solutions
- Completed work
  - Survey of Federal partners' HcDir needs
  - Created findings related to ESI
  - Completed assessment of architectural/deployment models



# Architectural Models and Assessment

- Architectural / Deployment Models for HcDir for FHA
  - Centralized
  - Federated
  - Hybrid
- Assessment and evaluation criteria for agency requirements and deployment models
  - Governance
  - Management / Operations
  - Resourcing, Level of Effort (LOE) and time to production
  - Financing and financial implications
  - Technical considerations



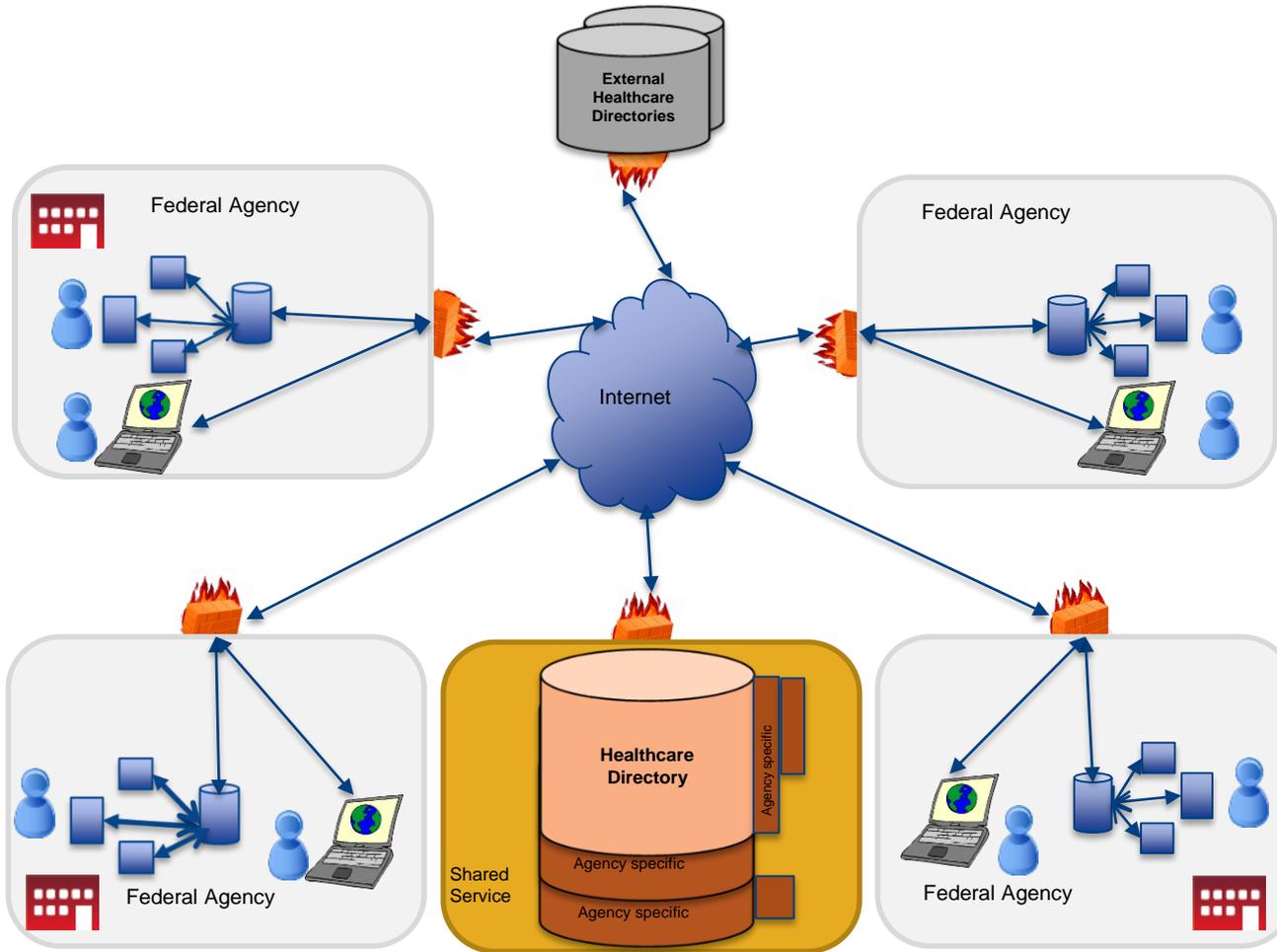
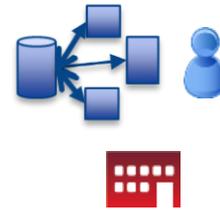
# HcDir Centralized Option

Single user query



Legend

Agency workflow



All agencies use a centralized directory





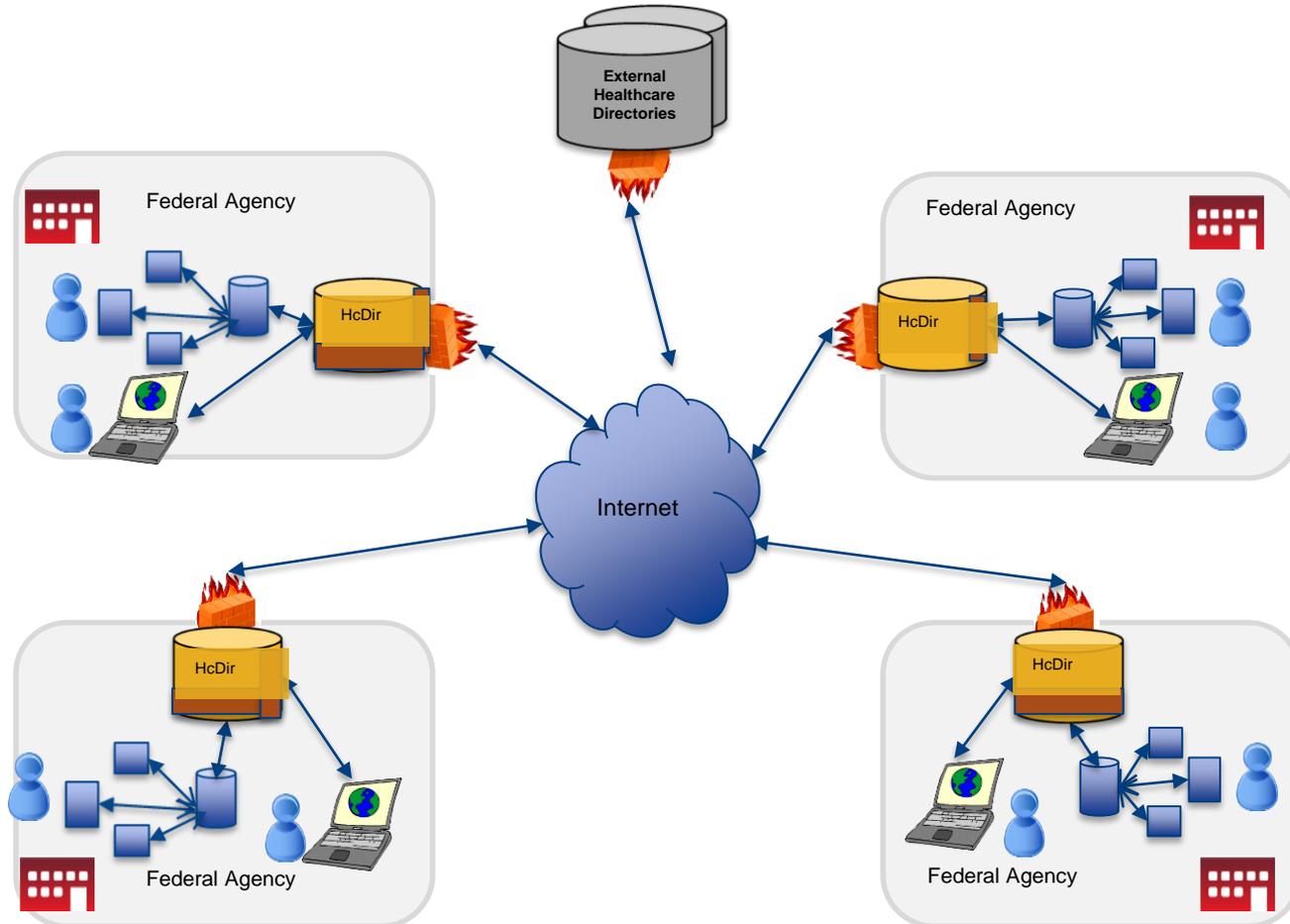
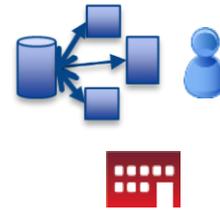
# HcDir Federated Option

Single user query



Legend

Agency workflow



Each agency has its own directories





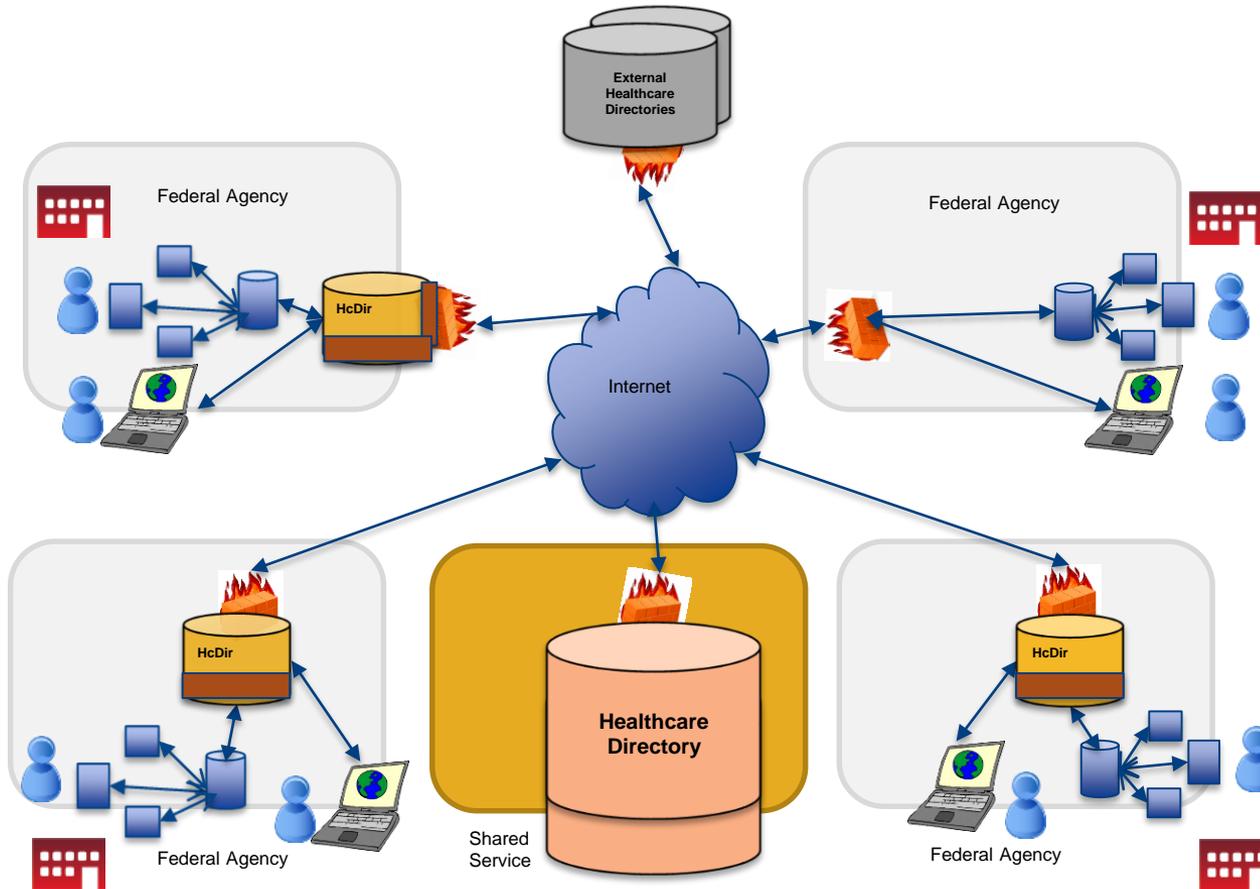
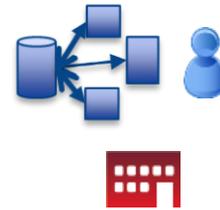
# HcDir Hybrid Option

Single user query



Legend

Agency workflow



Agencies have their own directories and share a centralized directory with information common to all





# HcDir Issues Summary

	Centralized	Federated	Hybrid	Centralized Alternative	Hybrid Alternative
<b>Governance</b>	3.3	9.3	7.5	5.0	6.5
<b>Mgmt and Ops</b>	6.4	10.0	8.2	8.2	9.0
<b>LOE and Time</b>	8.9	7.1	7.1	7.8	7.4
<b>Technical</b>	7.6	7.5	8.8	7.9	8.3
<b>Cost</b>	8.5	8.4	5.8	7.7	6.3
<b>Average</b>	<b>6.8</b>	<b>8.4</b>	<b>7.3</b>	<b>7.2</b>	<b>7.3</b>

**Summary:**

**Overall:** Federated is the most highly rated followed by a Hybrid model

**Centralized:** Strong points: Cost and Level of effort / timeline to initial functionality

Weak points: Governance and management/operations complexity

**Federated:** Strong points: Governance and management/operations

Weak points: Technical and LOE/Time to build solution for all agencies

**Hybrid:** Strong points: Technical and management/operations

Weak points: Cost and LOE/Time to build solution for all agencies





# HcDir Architecture Recommendations

- **Initial: Federation**
  - minimizes the governance and management / operations issues that may inhibit the initial adoption of HcDir
- **Mid-term: Hybrid Approach**
  - Provides for common approach to shared HcDir information and services
  - Each agency manages their own unique information requirements and workflow integration
- **Long-term: Hybrid Alternative Approach**
  - Add specific agency unique information and integration support to shared services



# Agency Specific Requirements

Agency*	Agency Specific Observations	Recommended Approach
CDC	Interest in Industry wide directory of electronic endpoints for licensed providers and emergency health services	Short Term: Federated or Hybrid (access to shared data on all providers) Mid-Term: Alternative Hybrid Long-Term: Alternative Hybrid
CMS	Statutory directories – NPPES / PECOS / Medicare EDI – interest in electronic endpoints for all NPI holders along with some additional agency specific information	Short Term: Federated or Hybrid (access to shared data on all providers) Mid-Term: Hybrid Long-Term: Alternative Hybrid
SSA	Need for all electronic endpoints for all providers along with significant additional internal information (multiple current directories)	Short Term: Federated or Hybrid (access to shared data on all providers) Mid-Term: Hybrid Long-Term: Alternative Hybrid
VA	Immediate need for HcDir supporting internal Direct addresses (all validated data) Mid-Long term interest in access to an industry wide directory	Short Term: Federated Mid-Long Term: Hybrid

\*DoD and Indian Health Services information not captured w/in work group





# HcDir Content Requirements Survey

- Developed a list of elements
- Obtained agency input
  - Current
  - Short Term
  - Mid Term
  - Long Term





# Summary of Requirements Survey

	<b>CDC</b>	<b>CMS</b>	<b>SSA</b>	<b>VA (Direct)</b>
Actions Against	None	C/S/M/L	S/M/L	None
Credentials	C/S/M/L	C/S/M/L	C/S/M/L	Limited
Demographics	M/L	C/S/M/L Specific	C/S/M/L Specific	C/S/M/L Specific
ESI	M/L	C/S/M/L	C/S/M/L	C/S/M/L Direct
Extensions	M/L	C/S/M/L	C/S/M/L	None
Scope	M/L All	C/S/M/L excl Fed	C/S/M/L Most	C/S/M/L Federal People/Org
Patient Access	M/L Specific	None	C/S/M/L Specific	Limited
Performance	None	M/L	M/L	None
Relationships	M/L Specific	C/S/M/L Specific	C/S/M/L Specific	C/S/M/L Specific
Trust	None	C/S/M/L	C/S/M/L	C/S/M/L





# Existing Related Directories

- Enumeration and evaluation of Federal directories
- Enumeration of non-Federal directories



# Existing Federal Directories

Owner	Directory	Scope	Benefits	Challenges
CMS	NPPES	95+% all providers,	open access,	No provider-org information, no ESI (currently), limited validation of information, document format, limited query capability
CMS	PECOS	60-70% NPPES	information validated	Limited access, no ESI
SSA	Internal	Virtually all providers	broad information	Information frequently out of date, for Internal use, limited ESI
VA	Internal	VA internal only	Information validated, includes Direct ESI	Limited access
CDC	PHINDIR	Providers, emergency preparedness	Open and accessible and web-based	Completeness, validation

\*DoD and Indian Health Services information not captured w/in work group





# HcDir Architecture Detail Work

- Completed
  - Recommendations for Establishing Trust Relationships
  - Recommendation for Direct and eHealth Exchange ESI
- Additional topics for consideration
  - Support for complex queries
  - Support for multiple query technologies including FHIR based REST API
  - Federation
    - Directory discovery
    - Security
    - Content replication
  - Maintenance and access
  - Audit trails
  - Certification & Accreditation for HcDir
  - Incorporating granular security